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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/708,583	03/12/2004	Avinash Malhotra	0307035KEL105C	2582
32583	7590	10/02/2006	EXAMINER	
KELLOGG BROWN & ROOT LLC ATTN: IP LEGAL DEPARTMENT 601 JEFFERSON AVENUE HOUSTON, TX 77002			LANGEL, WAYNE A	
			ART UNIT	PAPER NUMBER
			1754	

DATE MAILED: 10/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/708,583	<b>Applicant(s)</b> MALHOTRA ET AL.	
	<b>Examiner</b> Wayne Langel	<b>Art Unit</b> 1754	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 September 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) 19 and 20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 and 21-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>3-12-04</u> . | 6) <input type="checkbox"/> Other: _____  |

Applicants' traverse of the restriction requirement has been considered but is not deemed persuasive, since applicants' have not given any reason for the traversal.

Accordingly the restriction requirement is made FINAL.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-18 and 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Erikstruo et al in view of applicants' admitted prior art. Erikstrup et al disclose a process wherein an autothermal reformer is used in parallel with a reforming exchanger. (See col. 11, line 30 to col. 12, line 37.) The difference between the process disclosed by Erikstrup et al, and that recited in applicants' claims, is that Erikstrup et al do not disclose that the resulting gas should be subjected to shift conversion.

Applicants' admit in Paragraph [0003] of the specification that effluent from the steam reformer is usually converted in shift converters wherein CO and steam react to form additional hydrogen and carbon dioxide. It would be obvious from applicants' admitted prior art to subject the effluent from the steam reformers of Erikstruo to shift conversion. One of ordinary skill in the art would be motivated to do so, if one intended to produce ammonia where hydrogen is a main desired syngas constituent. There is no "description support" in parent SN 60/320015 for the invention recited in applicants' claims. For example, there is no support for a reforming temperature of 650 °C to 1050

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C. Accordingly the earliest date which can be accorded applicants' claims is March 12, 2004, and Erikstrup et al is properly available as prior art.

Claims 1-18 and 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burlingame et al or Le Blanc '625 in view of applicants' admitted prior art. Burlingame et al and Le Blanc '625 both disclose processes wherein an autothermal reformer is used in parallel with a reforming exchanger. (See the Abstract of each reference.) The difference between the processes disclosed by Burlingame et al and Le Blanc, and that recited in applicants' claims, is that Burlingame et al and Le Blanc do not disclose that the resulting gas should be subjected to shift conversion. Applicants' admit in Paragraph [0003] of the specification that effluent from the steam reformer is usually converted in shift converters wherein CO and steam react to form additional hydrogen and carbon dioxide. It would be obvious from applicants' admitted prior art to subject the effluent from the steam reformers of Burlingame et al and Le Blanc to shift conversion. One of ordinary skill in the art would be motivated to do so, if one intended to produce ammonia where hydrogen is a main desired syngas constituent.

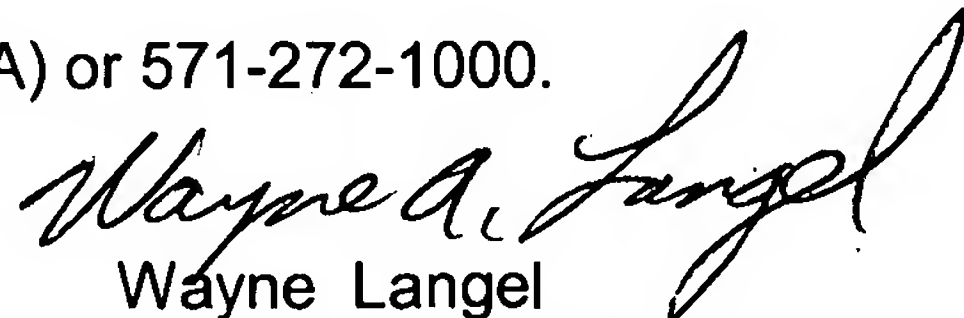
The Drawing and specification are objected to under 37 CFR 1.84 (u)(1) in referring to the sole figure as "Figure 1".

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wayne Langel whose telephone number is 571-272-1353. The examiner can normally be reached on Monday through Friday, 8 am - 3:30 pm Eastern Time.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on 571-272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Wayne Langel  
Primary Examiner  
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